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Application Number	161631, 273
Filing Date	07-31-2003
First Named Inventor	James Amburgey
Art Unit	
Examiner Name	
Attorney Docket Number	2726 PR

Sheet	1	of	2
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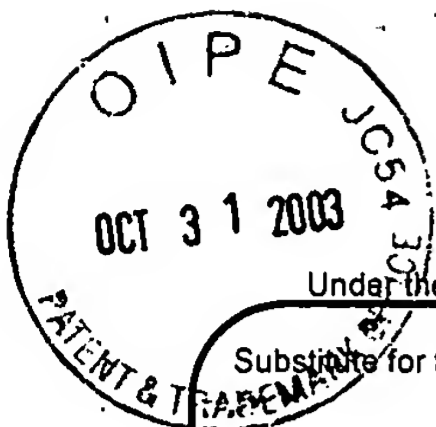
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PTO/SB/08B (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Application Number

Filing Date

07-31-2003

First Named Inventor

James Amburgey

Art Unit

Examiner Name

Sheet

2

of

2

Attorney Docket Number

2726 PR

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	1	AMBURGEY, JE et al. Controlling Filter "Ripening" Turbidity Spikes Via an Advanced Backwashing Technique. In Proceedings American water works Association Annual Conference June 15-19, 2003 Anaheim, CA	
	2	COLTON, JF et al. Filter Backwash and Start-Up Strategies For Enhanced Particulate Removal. Water Research 30:10:2502-2507. 1996	
	3	SUTHAKER, S et al. Optimisation of Filter Ripening Sequence. AQUA 47:3:107-118 1998	
	4	GUEST, K AND JADCZAK, N. Classifying and Categorizing On-line Filter Turbidity Opflow 27:1:8-9. 2001	
	5	CRANSTON, K.O., AND AMERTHARAJAH, A. Improving the Initial Effluent Quality of a Dual-media Filter by Coagulants in Backwash. Journal AWWA 79:12:50-63. 1987	
	6	PONTIUS, FW. Water Quality and Treatment 4th Ed. 1990. McGraw-Hill, NY. P. 477-479	
	7	USEPA. Optimizing Water Treatment Plant Performance Using The Composite Correction Program. 1998 Ed. Washington, DC. P. 215	

Examiner Signature		Date Considered	
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28 October 2003

Dear Sir or Madam:

I am not aware of any prior use of the extended terminal subfluidization wash (ETSW) backwash method or even any similar methods with the same intended application of improving the quality of the filtrate following a backwash. Every backwash procedure terminates with by changing the backwash water flow rate from a fluidizing flow rate to zero, and it is not uncommon to see one or more intermediate flows for a brief duration (e.g., 30-60 seconds each) to avoid switching pumps from full-speed to zero while also softening the collapse of the media from a fluidized bed to a fixed bed. The duration of the ETSW step of the backwash procedure would typically last between 5 and 15 minutes at subfluidization (intermediate) wash rate that is not just lower than the highest washrate employed, but the ETSW is necessarily conducted below the minimum fluidization velocity of the media.

In the enclosed information disclosure statement, I will include some background information on the overall processes of backwashing and filtration as practiced in the water treatment community. The included references will detail the problem of "filter ripening," which has been a common problem for many years and the topic of numerous research efforts. While the ETSW method can significantly reduce or even eliminate the problem of filter ripening, ETSW's lack of prior existence is evidenced by the other approaches that have been tried to reduce the impact of this problematic portion of the filtration cycle and by the failure of ETSW to be mentioned in recent literature. I will include a copy of my first conference paper regarding ETSW (June 2003), and a similar peer-reviewed paper will appear in the November or December issue of the *Journal American Water Works Association*. You can feel free to contact me via e-mail (james\_amburgey@hotmail.com) should you have any questions that are beyond the scope of the materials that I have include, and I will do my best to answer them or refer you elsewhere.

Kind regards,

James E. Amburgey